

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-36 (canceled).

1 37. (New) A method for artificially ageing a catalyst device for use on a
2 catalyst test bench for converting exhaust gases comprising at least one constituent from the
3 group consisting of C-, HC- and NO_x-containing constituents, in which method hot ageing gas
4 which comprises at least one constituent from the group consisting of C-, HC- and
5 NO_x-containing constituents is allowed for flow through the catalyst device, the hot ageing gas
6 being passed through a catalyst device which is for use on a catalyst test bench and is suitable for
7 the conversion of exhaust gases comprising C-, HC- and/or NO_x-containing constituents,
8 characterized in that gas which emerges from the catalyst device is partially admixed with the
9 ageing gas to be fed to the catalyst device, in order to be recirculated.

1 38. (New) The method of claim 37, characterized in that the host ageing gas
2 used is an exhaust gas generated by combustion of a C-containing fuel.

1 39. (New) The method as claimed in claim 38, characterized in that the hot
2 exhaust gas is generated in a burner by combustion with combustion air.

1 40. (New) The method as claimed in claim 38, characterized in that the hot
2 exhaust gas is generated in a gas turbine.

1 41. (New) The method as claimed in claim 37, characterized in that the hot
2 ageing gas is passed through the catalyst device by means of a blower.

1 42. (New) The method as claimed in claim 37, characterized in that the
2 ageing gas is introduced into the catalyst device at a temperature of > 250°C.

1 43. (New) The method as claimed in claim 42, characterized in that the
2 ageing gas is introduced into the catalyst device at a temperature of > 700°C.

1 44. (New) The method as claimed in claim 43, characterized in that the
2 ageing gas is introduced into the catalyst device at a temperature of from approximately 1000°C
3 to approximately 1250°C.

1 45. (New) The method as claimed in claim 39, characterized in that the hot
2 exhaust gas is generated during combustion operation with lambda > 1.

1 46. (New) The method as claimed in claim 45, characterized in that the hot
2 exhaust gas is generated during combustion operation with lambda > 1.5.

1 47. (New) The method as claimed in claim 38, characterized in that the fuel
2 used is a combustible C-containing fluid selected from the group consisting of gaseous and liquid
3 fluids.

1 48. (New) The method as claimed in claim 47, characterized in that the fuel
2 used is low sulfur fuel.

1 49. (New) The method as claimed in claim 48, characterized in that a fuel
2 with a sulfur content of > 10 ppm is used.

1 50. (New) The method as claimed in claim 49, characterized in that a fuel
2 with a sulfur content of > 5 ppm is used.

1 51. (New) The method as claimed in claim 38, characterized in that the ratio
2 of fuel to combustion air is varied in predetermined cycles.

1 52. (New) The method as claimed in claim 51, characterized in that the
2 catalyst device is subjected to different ageing gas compositions and ageing gas temperatures
3 corresponding to a combined load cycle.

1 53. (New) The method as claimed in claim 52, characterized in that the
2 catalyst device is subjected to load corresponding to mixed vehicle operation.

1 54. (New) The method as claimed in claim 37, characterized in that the
2 catalyst device is subjected a number of times, in each case after an ageing step, to a diagnosis,
3 in which the amplitude ratio of a post-cat sensor as a measure of the oxygen storage capacity is
4 compared with a model, the model being matched to a relevant limit catalyst and a limit value
5 being determined from the amplitude ratio between the current signal of the post-cat sensor
6 compared to the modeled post-cat sensor signal, the post-cat sensor signal being taken as a
7 measure of the oxygen storage capacity of the catalyst device.

1 55. (New) The method as claimed in claim 37, characterized in that the
2 ageing gas fed to the catalyst device is cooled.

1 56. (New) The method as claimed in claim 55, characterized in that the
2 ageing gas fed to the catalyst device is cooled by gas emerging from the catalyst device.

1 57. (New) The method as claimed in claim 56, characterized in that gas
2 emerging from the catalyst device is admixed in cooled form with the ageing gas that is to be fed
3 to the catalyst device.

1 58. (New) The method as claimed in claim 37, characterized in that the
2 temperature of the ageing gas fed to the catalyst device is varied by cooling independently of the
3 setting of lambda during generation of the ageing gas.

1 59. (New) The method as claimed in claim 37, characterized in that at least
2 one component is admixed to the hot ageing gas in order to set a defined composition of the
3 ageing gas.

1 60. (New) The method as claimed in claim 59, characterized in that at least
2 one component selected from the group consisting of C- and HC-containing gas constituents is
3 admixed.

1 61. (New) The method as claimed in claim 37, characterized in that the
2 ageing gas is generated synthetically.

1 62. (New) The method as claimed in claim 37, characterized in that a catalyst
2 device selected from the group consisting of a 3-way catalyst, an NO_x catalyst, an oxidation
3 catalyst, a reformer for reducing agent and a reformer for fuel cells is aged using the ageing gas.

1 63. (New) An apparatus for artificially ageing a catalyst device for use on a
2 catalyst test bench for converting exhaust gases comprising at least one constituent from the
3 group consisting of C-, HC- and NO_x-containing constituents, in which a device for generating a
4 hot ageing gas and a device for passing the host ageing gas through the catalyst device are
5 provided, characterized in that a device for partial recirculation of gas emerging from the catalyst
6 device to the ageing gas is provided.

1 64. (New) The apparatus as claimed in claim 63, characterized in that the
2 device for generating a hot ageing gas is a device for combustion of a C-containing fuel with
3 combustion air.

1 65. (New) The apparatus as claimed in claim 64, characterized in that the
2 device for passing the hot ageing gas through the catalyst device is a hot-air blower.

1 66. (New) The apparatus as claimed in claim 64, characterized in that the
2 device for passing the hot ageing gas through the catalyst device is a suction jet pump.

1 67. (New) The apparatus as claimed in claim 63, characterized in that a
2 temperature sensor is provided for measuring the temperature of the ageing gas that is to be fed
3 to the catalyst device.

1 68. (New) The apparatus as claimed in claim 67, characterized in that a device
2 for controlling the temperature of the ageing gas that is to be fed to the catalyst device is
3 provided.

1 69. (New) The apparatus as claimed in claim 63, characterized in that a
2 device for cooling the ageing gas that is to be fed to the catalyst device is provided.

1 70. (New) The apparatus as claimed in claim 69, characterized in that the
2 device for cooling the ageing gas that is to be fed to the catalyst device comprises a device for
3 cooling recirculated gas emerging from the catalyst device.

1 71. (New) The apparatus as claimed in claim 63, characterized in that an
2 oxygen sensor is provided at the outlet of the catalyst device for the purpose of monitoring the
3 catalyst device.

1 72. (New) The apparatus as claimed in claim 63, characterized in that an
2 oxygen sensor is provided for the purpose of monitoring the ageing gas that is to be fed to the
3 catalyst device.